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Sequence Listing was accepted.

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Reviewer: Keisha Douglas

Timestamp: [year=2008; month=10; day=22; hr=17; min=36; sec=29; ms=56;]

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Application No: 10519647 Version No: 1.0

Input Set:

Output Set:

Started: 2008-09-22 16:12:38.138
Finished: 2008-09-22 16:12:38.534
Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 396 ms
Total Warnings: 1
Total Errors: 0
No. of SeqIDs Defined: 13
Actual SeqID Count: 13

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (13)

Sequence Listing

<110> Kelley, Robert F.

Hymowitz, Sarah

Lindstrom, Stephanie Ho

<120> APO-2 LIGAND/TRAIL VARIANTS AND USES THEREOF

<130> P1966R1

<140> 10519647

<141> 2008-09-22

<150> PCT/US03/019750

<151> 2003-06-23

<150> US 60/391,050

<151> 2002-06-24

<160> 13

<210> 1

<211> 281

<212> PRT

<213> Homo sapiens

<400> 1

Met Ala Met Met Glu Val Gln Gly Gly Pro Ser Leu Gly Gln Thr
1 5 10 15

Cys Val Leu Ile Val Ile Phe Thr Val Leu Leu Gln Ser Leu Cys
20 25 30

Val Ala Val Thr Tyr Val Tyr Phe Thr Asn Glu Leu Lys Gln Met
35 40 45

Gln Asp Lys Tyr Ser Lys Ser Gly Ile Ala Cys Phe Leu Lys Glu
50 55 60

Asp Asp Ser Tyr Trp Asp Pro Asn Asp Glu Glu Ser Met Asn Ser
65 70 75

Pro Cys Trp Gln Val Lys Trp Gln Leu Arg Gln Leu Val Arg Lys
80 85 90

Met Ile Leu Arg Thr Ser Glu Glu Thr Ile Ser Thr Val Gln Glu
95 100 105

Lys Gln Gln Asn Ile Ser Pro Leu Val Arg Glu Arg Gly Pro Gln
110 115 120

Arg Val Ala Ala His Ile Thr Gly Thr Arg Gly Arg Ser Asn Thr
125 130 135

Leu Ser Ser Pro Asn Ser Lys Asn Glu Lys Ala Leu Gly Arg Lys
140 145 150

Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly His Ser Phe Leu Ser
155 160 165

Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His Glu Lys Gly
170 175 180

Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Glu
185 190 195

Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln Tyr Ile
200 205 210

Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys Ser
215 220 225

Ala Arg Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr
230 235 240

Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg
245 250 255

Ile Phe Val Ser Val Thr Asn Glu His Leu Ile Asp Met Asp His
260 265 270

Glu Ala Ser Phe Phe Gly Ala Phe Leu Val Gly
275 280

<210> 2
<211> 1042
<212> DNA
<213> Homo sapiens

<220>
<221> Unsure
<222> 447
<223> Unknown base

<400> 2
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atcttcacag tgctcctgca gtctctctgt gtggctgtaa cttacgtgt 200

ctttaccaac gagctgaagc agatgcagga caagtactcc aaaagtggca 250

ttgcttgttt cttaaaagaa gatgacagtt attgggaccc caatgacgaa 300

gagagtatga acagccccctg ctggcaagtc aagtggcaac tccgtcagct 350

cgtagaaaaatgatgttga gaaacctctga ggaaaccatt tctacagttc 400

aagaaaaagca acaaaatatt tctcccctag tgagagaaaag aggtccncag 450

agagtagcag ctcacataac tgggaccaga ggaagaagca acacattgtc 500
ttctccaaac tccaagaatg aaaaggctct gggccgcaaa ataaaactcct 550
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aatggtgaac tggtcatcca taaaaaaggg ttttactaca tctattccca 650
aacatactt cgattcagg agggaaataaa agaaaaacaca aagaacgaca 700
aacaaatggc ccaatatatt tacaatataca caagttatcc tgaccctata 750
ttgttcatga aaagtgcgtaaatggatggctaaatgcagaata 800
tggactctat tccatctatc aaggggaaat atttgagctt aaggaaaatg 850
acagaatttt tgttctgtt acaaattgagc acttgataga catggaccat 900
gaagccagtt tttcggggc ctttttagtt ggctaactga cctggaaaga 950
aaaagcaata acctcaaagt gactatttagt tttcaggat gatacactat 1000
gaagatgtt caaaaaatct gaccaaaaca aacaaacaga aa 1042

<210> 3
<211> 468
<212> PRT
<213> Homo sapiens

<400> 3
Met Ala Pro Pro Pro Ala Arg Val His Leu Gly Ala Phe Leu Ala
1 5 10 15
Val Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr Glu Ala Ala
20 25 30
Ala Ala Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly Arg Ile
35 40 45
Glu Pro Arg Gly Gly Arg Gly Ala Leu Pro Thr Ser Met Gly
50 55 60
Gln His Gly Pro Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly
65 70 75
Pro Arg Pro Ala Arg Glu Ala Ser Pro Arg Leu Arg Val His Lys
80 85 90
Thr Phe Lys Phe Val Val Val Gly Val Leu Leu Gln Val Val Pro
95 100 105
Ser Ser Ala Ala Thr Ile Lys Leu His Asp Gln Ser Ile Gly Thr
110 115 120
Gln Gln Trp Glu His Ser Pro Leu Gly Glu Leu Cys Pro Pro Gly
125 130 135

Ser His Arg Ser Glu Arg Pro Gly Ala Cys Asn Arg Cys Thr Glu
140 145 150

Gly Val Gly Tyr Thr Asn Ala Ser Asn Asn Leu Phe Ala Cys Leu
155 160 165

Pro Cys Thr Ala Cys Lys Ser Asp Glu Glu Glu Arg Ser Pro Cys
170 175 180

Thr Thr Thr Arg Asn Thr Ala Cys Gln Cys Lys Pro Gly Thr Phe
185 190 195

Arg Asn Asp Asn Ser Ala Glu Met Cys Arg Lys Cys Ser Thr Gly
200 205 210

Cys Pro Arg Gly Met Val Lys Val Lys Asp Cys Thr Pro Trp Ser
215 220 225

Asp Ile Glu Cys Val His Lys Glu Ser Gly Asn Gly His Asn Ile
230 235 240

Trp Val Ile Leu Val Val Thr Leu Val Val Pro Leu Leu Leu Val
245 250 255

Ala Val Leu Ile Val Cys Cys Cys Ile Gly Ser Gly Cys Gly Gly
260 265 270

Asp Pro Lys Cys Met Asp Arg Val Cys Phe Trp Arg Leu Gly Leu
275 280 285

Leu Arg Gly Pro Gly Ala Glu Asp Asn Ala His Asn Glu Ile Leu
290 295 300

Ser Asn Ala Asp Ser Leu Ser Thr Phe Val Ser Glu Gln Gln Met
305 310 315

Glu Ser Gln Glu Pro Ala Asp Leu Thr Gly Val Thr Val Gln Ser
320 325 330

Pro Gly Glu Ala Gln Cys Leu Leu Gly Pro Ala Glu Ala Glu Gly
335 340 345

Ser Gln Arg Arg Arg Leu Leu Val Pro Ala Asn Gly Ala Asp Pro
350 355 360

Thr Glu Thr Leu Met Leu Phe Phe Asp Lys Phe Ala Asn Ile Val
365 370 375

Pro Phe Asp Ser Trp Asp Gln Leu Met Arg Gln Leu Asp Leu Thr
380 385 390

Lys Asn Glu Ile Asp Val Val Arg Ala Gly Thr Ala Gly Pro Gly
395 400 405

Asp Ala Leu Tyr Ala Met Leu Met Lys Trp Val Asn Lys Thr Gly
410 415 420

Arg Asn Ala Ser Ile His Thr Leu Leu Asp Ala Leu Glu Arg Met
425 430 435

Glu Glu Arg His Ala Lys Glu Lys Ile Gln Asp Leu Leu Val Asp
440 445 450

Ser Gly Lys Phe Ile Tyr Leu Glu Asp Gly Thr Gly Ser Ala Val
455 460 465

Ser Leu Glu

<210> 4
<211> 1407
<212> DNA
<213> Homo sapiens

<400> 4
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tccgaatccc gggagcgcag cgagtggtac agaggcagcc gcggccacac 100

ccagcaaagt gtggggctct tccgcgggaa ggattgaacc acgaggcggg 150

ggcccgaggag cgctccctac ctccatggga cagcacggac ccagtgcggc 200

ggccccggca gggcgcgccc caggacccag gccggcgccgg gaagccagcc 250

ctcggctccg ggtccacaag acttcaagt ttgtcgtcgt cggggtcctg 300

ctgcaggctcg tacctagctc agctgcaacc atgatcaatc aattggcaca 350

aattggcaca cagcaatggg aacatagccc tttggagag ttgtgtccac 400

caggatctca tagatcagaa cgtcctggag cctgttaaccg gtgcacagag 450

ggtgtgggtt acaccaatgc ttccaacaat ttgtttgtt gcctccatg 500

tacagcttgt aaatcagatg aagaagagag aagtccctgc accacgacca 550

ggaacacacgc atgtcagtgc aaaccaggaa ctttcggaa tgacaattct 600

gctgagatgt gcccggatgt cagcacaggg tgccccagag ggtatggtcaa 650

ggtcaaggat tgtacgccc ggagtgcacat cgagtgtgtc cacaagaat 700

caggcaatgg acataatata tgggtgatTT tggttgtgac tttggttgtt 750

ccgttgctgt tggggctgt gctgattgtc tgggttgca tcggctcagg 800

ttgtggaggg gacccaaagt gcatggacag ggtgtgttcc tggcgcttgg 850

gtctcctacg agggcctggg gctgaggaca atgctcacaa cgagattctg 900

agcaacgcag actcgctgtc cactttcgac tctgagcagc aaatggaaag 950

ccaggagccg gcagattga caggtgtcac tgtacagtcc ccaggggagg 1000

cacagtgtct gctgggaccg gcagaagctg aagggtctca gaggaggagg 1050
ctgctggttc cagcaaatgg tgctgacccc actgagactc tcatgctgtt 1100
cttgacaag tttgcaaaca tcgtgccct tgactcctgg gaccagctca 1150
tgagggcagct ggacacctacg aaaaatgaga tcgatgtggt cagagctgg 1200
acagcaggcc caggggatgc cttgtatgca atgctgatga aatgggtcaa 1250
caaaaactgga cggaacgcct cgatccacac cctgctggat gccttggaga 1300
ggatggaaga gagacatgca aaagagaaga ttcaaggacct cttggtgac 1350
tctggaaagt tcatctactt agaagatgac acaggctctg ccgtgtcctt 1400
ggagtga 1407

<210> 5
<211> 411
<212> PRT
<213> Homo sapiens

<400> 5
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1 5 10 15
Lys Arg His Gly Pro Gly Pro Arg Glu Ala Arg Gly Ala Arg Pro
20 25 30
Gly Leu Arg Val Pro Lys Thr Leu Val Leu Val Val Ala Ala Val
35 40 45
Leu Leu Leu Val Ser Ala Glu Ser Ala Leu Ile Thr Gln Gln Asp
50 55 60
Leu Ala Pro Gln Gln Arg Ala Ala Pro Gln Gln Lys Arg Ser Ser
65 70 75
Pro Ser Glu Gly Leu Cys Pro Pro Gly His His Ile Ser Glu Asp
80 85 90
Gly Arg Asp Cys Ile Ser Cys Lys Tyr Gly Gln Asp Tyr Ser Thr
95 100 105
His Trp Asn Asp Leu Leu Phe Cys Leu Arg Cys Thr Arg Cys Asp
110 115 120
Ser Gly Glu Val Glu Leu Ser Pro Cys Thr Thr Arg Asn Thr
125 130 135
Val Cys Gln Cys Glu Glu Gly Thr Phe Arg Glu Glu Asp Ser Pro
140 145 150
Glu Met Cys Arg Lys Cys Arg Thr Gly Cys Pro Arg Gly Met Val
155 160 165

Lys Val Gly Asp Cys Thr Pro Trp Ser Asp Ile Glu Cys Val His
170 175 180

Lys Glu Ser Gly Ile Ile Ile Gly Val Thr Val Ala Ala Val Val
185 190 195

Leu Ile Val Ala Val Phe Val Cys Lys Ser Leu Leu Trp Lys Lys
200 205 210

Val Leu Pro Tyr Leu Lys Gly Ile Cys Ser Gly Gly Gly Asp
215 220 225

Pro Glu Arg Val Asp Arg Ser Ser Gln Arg Pro Gly Ala Glu Asp
230 235 240

Asn Val Leu Asn Glu Ile Val Ser Ile Leu Gln Pro Thr Gln Val
245 250 255

Pro Glu Gln Glu Met Glu Val Gln Glu Pro Ala Glu Pro Thr Gly
260 265 270

Val Asn Met Leu Ser Pro Gly Glu Ser Glu His Leu Leu Glu Pro
275 280 285

Ala Glu Ala Glu Arg Ser Gln Arg Arg Arg Leu Leu Val Pro Ala
290 295 300

Asn Glu Gly Asp Pro Thr Glu Thr Leu Arg Gln Cys Phe Asp Asp
305 310 315

Phe Ala Asp Leu Val Pro Phe Asp Ser Trp Glu Pro Leu Met Arg
320 325 330

Lys Leu Gly Leu Met Asp Asn Glu Ile Lys Val Ala Lys Ala Glu
335 340 345

Ala Ala Gly His Arg Asp Thr Leu Tyr Thr Met Leu Ile Lys Trp
350 355 360

Val Asn Lys Thr Gly Arg Asp Ala Ser Val His Thr Leu Leu Asp
365 370 375

Ala Leu Glu Thr Leu Gly Glu Arg Leu Ala Lys Gln Lys Ile Glu
380 385 390

Asp His Leu Leu Ser Ser Gly Lys Phe Met Tyr Leu Glu Gly Asn
395 400 405

Ala Asp Ser Ala Leu Ser
410

<210> 6

<211> 440

<212> PRT

<213> Homo sapiens

<400> 6

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Lys Arg His Gly Pro Gly Pro Arg Glu Ala Arg Gly Ala Arg Pro														
				20						25				30
Gly Pro Arg Val Pro Lys Thr Leu Val Leu Val Val Ala Ala Val														
				35					40					45
Leu Leu Leu Val Ser Ala Glu Ser Ala Leu Ile Thr Gln Gln Asp														
				50				55						60
Leu Ala Pro Gln Gln Arg Ala Ala Pro Gln Gln Lys Arg Ser Ser														
				65				70						75
Pro Ser Glu Gly Leu Cys Pro Pro Gly His His Ile Ser Glu Asp														
				80				85						90
Gly Arg Asp Cys Ile Ser Cys Lys Tyr Gly Gln Asp Tyr Ser Thr														
				95				100						105
His Trp Asn Asp Leu Leu Phe Cys Leu Arg Cys Thr Arg Cys Asp														
				110				115						120
Ser Gly Glu Val Glu Leu Ser Pro Cys Thr Thr Thr Arg Asn Thr														
				125				130						135
Val Cys Gln Cys Glu Glu Gly Thr Phe Arg Glu Glu Asp Ser Pro														
				140				145						150
Glu Met Cys Arg Lys Cys Arg Thr Gly Cys Pro Arg Gly Met Val														
				155				160						165
Lys Val Gly Asp Cys Thr Pro Trp Ser Asp Ile Glu Cys Val His														
				170				175						180
Lys Glu Ser Gly Thr Lys His Ser Gly Glu Ala Pro Ala Val Glu														
				185				190						195
Glu Thr Val Thr Ser Ser Pro Gly Thr Pro Ala Ser Pro Cys Ser														
				200				205						210
Leu Ser Gly Ile Ile Ile Gly Val Thr Val Ala Ala Val Val Leu														
				215				220						225
Ile Val Ala Val Phe Val Cys Lys Ser Leu Leu Trp Lys Lys Val														
				230				235						240
Leu Pro Tyr Leu Lys Gly Ile Cys Ser Gly Gly Gly Gly Asp Pro														
				245				250						255
Glu Arg Val Asp Arg Ser Ser Gln Arg Pro Gly Ala Glu Asp Asn														
				260				265						270
Val Leu Asn Glu Ile Val Ser Ile Leu Gln Pro Thr Gln Val Pro														
				275				280						285

Glu Gln Glu Met Glu Val Gln Glu Pro Ala Glu Pro Thr Gly Val
290 295 300

Asn Met Leu Ser Pro Gly Glu Ser Glu His Leu Leu Glu Pro Ala
305 310 315

Glu Ala Glu Arg Ser Gln Arg Arg Arg Leu Leu Val Pro Ala Asn
320 325 330

Glu Gly Asp Pro Thr Glu Thr Leu Arg Gln Cys Phe Asp Asp Phe
335 340 345

Ala Asp Leu Val Pro Phe Asp Ser Trp Glu Pro Leu Met Arg Lys
350 355 360

Leu Gly Leu Met Asp Asn Glu Ile Lys Val Ala Lys Ala Glu Ala
365 370 375

Ala Gly His Arg Asp Thr Leu Tyr Thr Met Leu Ile Lys Trp Val
380 385 390

Asn Lys Thr Gly Arg Asp Ala Ser Val His Thr Leu Leu Asp Ala
395 400 405

Leu Glu Thr Leu Gly Glu Arg Leu Ala Lys Gln Lys Ile Glu Asp
410 415 420

His Leu Leu Ser Ser Gly Lys Phe Met Tyr Leu Glu Gly Asn Ala
425 430 435

Asp Ser Ala Met Ser
440

<210> 7
<211> 161
<212> PRT
<213> Homo sapiens

<400> 7
Arg Val Ala Ala His Ile Thr Gly Thr Arg Gly Arg Ser Asn Thr
1 5 10 15

Leu Ser Ser Pro Asn Ser Lys Asn Glu Lys Ala Leu Gly Arg Lys
20 25 30

Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly His Ser Phe Leu Ser
35 40